

REMARKS/ARGUMENTS

Claims 1-5 and 7-22 are pending in the present application. Claims 1, 3, 7, 8, 10, 12, 15 and 20 have been amended, and Claim 6 has been cancelled, herewith. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 101

Claims 8-14 and 20-22 stand rejected under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. This rejection is respectfully traversed.

In rejecting Claims 8-14 and 20-22, the Examiner states on page 2 of the Office Action dated December 15, 2006:

“Claims 8-14 and 20-22 are rejected under 35 U.S.C. § 101 as being directed towards non-statutory subject matter. The claims encompass transmission type media and programming per se.”

Applicants urge error in such rejection, as failing to comply with the requirements of M.P.E.P 2106. There, it is stated that the Examiner should indicate how rejections may be overcome¹, and is required to set forth a *prima facie* case of unpatentability². The Examiner has failed to meet such burden, merely asserting the claims encompass transmission type media and programming per se. Thus, it is shown that Claim 8 has been erroneously rejected under 35 U.S.C. § 101 due to such burden failure pursuant to M.P.E.P 2106.

In addition, Claim 8 has been amended to recite that the computer program product is encoded in a computer readable medium and operable in a data processing system for managing caching of data by a browser, as specifically allowed for per the requirements of MPEP 706.03(a) and 2106. See, in particular, MPEP 2106(IV)(B)(1)(a) where it states:

¹ MPEP 2106(II): Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, *>USPTO< personnel should indicate how rejections may be overcome and how problems may be resolved. A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.

² MPEP 2106(IV)(B): The burden is on the USPTO to set forth a *prima facie* case of unpatentability. Therefore if USPTO personnel determine that it is more likely than not that the claimed subject matter falls outside all of the statutory categories, they must provide an explanation.

“A claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.”

Accordingly, as Claim 8 expressly recites a computer program product encoded in a computer readable medium and operable in a data processing system for managing caching of data by a browser, it is shown that Claim 8 (and similarly for Claims 9-14 and 20-22) is directed to statutory subject matter, pursuant to the USPTO's own MPEP rules.

Still further, Claim 8 explicitly recites a computer program product encoded in a computer readable medium and operable in a data processing system for managing caching of data by a browser, which is either a ‘manufacture’ or a ‘composition of matter’, both of which are statutorily recognized subject matter³. In addition, since Claim 8 explicitly recites a computer program product encoded in a computer readable medium and operable in a data processing system, such claim does *not* fall within one of the three judicially determined exceptions of natural phenomenon, law of nature or abstract idea (see, e.g., MPEP 2106 and in particular MPEP 2106(IV)(B) and (C)), but instead is limited to a practical application in the technological arts⁴. Thus, it is further shown that Claim 8 has been erroneously rejected under 35 U.S.C. § 101 as the invention recited therein does not fall within a judicial exception but instead is limited to a practical application in the technological arts.

The Examiner notes concern that the claimed computer-readable medium encompasses transmission-type media, which the Examiner asserts to be non-statutory *without providing any legal basis*, either pursuant to the MPEP, statutory law, or judicial precedent. Applicants respectfully submit that both *In re Lowry, Id.* and the MPEP explicitly state that computer computer-readable medium encoded with a data structure is statutory – without any type of transmission-media exception as now alleged by the Examiner to be the current state of the law. Because it is permissible to claim information embodied in a storage medium (*In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995)), it is worth noting that the “difference between information storage and information communication is fundamentally only a

³ 35 U.S.C. 101 Inventions patentable.

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

⁴ *Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101. Compare Musgrave*, 431 F.2d at 893, 167 USPQ at 289; *In re Foster*, 438 F.2d 1011, 1013, 169 USPQ 99, 101 (CCPA 1971).

difference in one's inertial frame of reference." Michael P. Frank, "The Physical Limits of Computing," Computing in Science & Engineering, May/June 2002, at 24. The following six cases conclusively establish judicial precedent that electrical signals – such as transmission-type media - are physical, and statutory under 35 U.S.C. § 101.

In *AT & T Corp. v. Excel Communications Inc.*, 172 F.3d 1352, 50 USPQ2d 1447 (Fed. Cir 1999), the CAFC stated at one point about electrical signals being physical:

The Arrhythmia court reasoned that the method claims qualified as statutory subject matter by noting that the steps **transformed physical, electrical signals from one form into another.**

Turning to Arrhythmia Research Technology Inc. v. Corazonix Corp., 958 F.2d 1053, 22 USPQ2d 1033 (Fed. Cir. 1992), the CAFC wrote about electrical signals being physical:

These claimed steps of "converting", "applying", "determining", and "comparing" are physical process steps that transform one physical, electrical signal into another. **The view that "there is nothing necessarily physical about 'signals' is incorrect,** citing *In re Taner*, 681 F.2d 787 (CAFC 1982) (emphasis added by Applicants).

Turning to *In re Taner*, Id., where the PTO was fighting an appeal of a rejection of the PTO Board of Appeals of a claim for a signal, the CCPA (the predecessor court to the CAFC) wrote:

Though the [PTO] board conceded that appellants' process includes conversion of seismic signals into a different form, it took the position that "there is nothing necessarily physical about 'signals'" and that "the end product of [appellants' invention] is a mathematical result in the form of a pure number." That characterization is contrary to the views expressed by this court in *In re Sherwood*, 613 F.2d 809 (CCPA 1980) and *In re Johnson*, 589 F.2d 1020 (CCPA 1978), **where signals were viewed as physical and the processes were viewed as transforming them to a different state.** ... and in *Sherwood* expressly recognized that **"seismic traces are ... physical apparitions."** 613 F.2d at 819. That those "physical apparitions" may be expressed in mathematical terms is in our view irrelevant (emphasis added by Applicants).

The last case is the Supreme Court decision *O'Reilly v. Morse* from 1853 (56 U.S. 62), in which the Supreme Court upheld the following product claim for signals:

1. I claim as my invention the system of signs consisting of dots spaces and of dots, spaces and horizontal lines for numerals, letters, words or sentences substantially as herein set forth and illustrated for telegraph purposes.

So, across decades of judicial decisions, we have the CAFC and the Federal Circuit repeatedly stating that electrical signals are physical, backed up by the Supreme Court. Being physical, such signals are tangible articles. Since such signals can be manufactured according to numerous varieties of technological methods, such signals are articles of manufacture or composition of matter, both of which are statutory categories of patentability under 35 U.S.C. § 101. Thus, Claim 8 is shown to be statutory under 35 U.S.C. § 101 as it explicitly recites a computer program product encoded in a computer readable medium and operable in a data processing system for managing caching of data by a browser, pursuant to both (extensive) judicial case law and the USPTO's own MPEP rules. Accordingly, Claim 8 (and Claims 9-14 and 20-22) are statutory under 35 U.S.C. § 101.

II. 35 U.S.C. § 112, First Paragraph

Claim 7 stands rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

The Examiner states that the specification does not teach “an order”. While Applicants urge that the Specification does in fact describe that items are written in a prioritized order at page 13, line 25 – page 14, last line; page 16, lines 1-24; and page 20, Claim 7 (the claims as originally filed are a part of the actual Specification itself), Applicants have amended the terminology to eliminate the use of the word ‘order’ in order to expeditiously further prosecution of this case and expeditiously place it in condition for allowance.

In addition, dependent Claim 7 has been amended to include features of originally filed independent Claim 1 (of which Claim 7 originally depended upon). It is urged that the cited reference does not teach or otherwise suggest the claimed dynamic reprioritization, which advantageously accommodates situations when the most significant data for properly evaluating a system fault cause is dependent upon the type of fault. For example, data retrieved from DRAM buffers may be the most critical data for properly evaluating a particular type of system failure, while data retrieved from an NVRAM buffer may be the most critical data for properly evaluating another type of system failure

(Specification page 16, lines 1-24). It is thus urged that Claim 7 is allowable in view of the cited reference.

Therefore the rejection of Claim 7 under 35 U.S.C. § 112, first paragraph has been overcome.

III. 35 U.S.C. § 112, Second Paragraph

Claim 7 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter, which applicants regard as the invention. This rejection is respectfully traversed.

The Examiner states that antecedent basis is not provided by “the order”. Applicants have amended Claim 7 to eliminate usage of this objectionable terminology.

Therefore, the rejection of Claim 7 under 35 U.S.C. § 112, second paragraph has been overcome.

IV. 35 U.S.C. § 102, Anticipation

Claims 1-4, 6, 15 and 18-22 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Lautenbach-Lampe et al.*, Method for Storing Computer Status Data Given a Malfunction That Requires a Subsequent Restarting of the Computer, U.S. Patent No. 6,279,120 B1, (August 21, 2001), (hereinafter “*Lautenbach-Lampe*”). This rejection is respectfully traversed.

With respect to Claim 1 (and similarly for dependent Claims 2, 4 and 6), Applicants have amended such claim in accordance with the description at Specification page 12, line 25 – page 13, line 24 and depicted in Figure 4B, element 446. It is urged that the cited reference does not contemplate such *conditional creation of the data dump* by the firmware based upon the type of reset. Rather, the only conditional processing described by the cited reference with respect to a booting operation is a data transfer operation is conditionally performed based upon whether or not data formatting of main memory is required (*Lautenbach-Lampe*, col. 4, lines 5-22 and in particular lines 15-19). The claimed feature of conditionally creating a data dump in a persistent storage of the data processing system by the firmware based upon a type of reset that caused the system boot advantageously allows for bypassing the boot data dump if the type of reset is not a boot dump collection reset type (Specification page 12, lines 25 – page 13, line 3). Claim 1 has been further amended to specify such boot dump collection reset types. Thus, it is urged that the amendment to Claim 1 has overcome the present 35 U.S.C. § 102(b) rejection.

With respect to Claim 3, Applicants have amended such claim in accordance with the description at Specification page 11, line 7 – page 12, line 8 and as depicted in Figure 4A, elements 414-420, 426 and 430. As amended, Claim 3 is directed to a method of generating a data dump in a data processing system, including steps of (i) detecting a fault condition of the data processing system; (ii) determining if the data processing system is in a recoverable state; (iii) executing a firmware that includes first failure data

capture logic; and (iv) creating a data dump in a persistent storage of the data processing system by the firmware if it was determined that the data processing system is not in a recoverable state, otherwise continue execution of the firmware to initialize hardware of the data processing system without creating the data dump. These claimed features advantageously provide an ability for the dump collection routine to optionally be executed during system boot when a data processing system is not in a state to collect dump information upon a fault condition (Specification page 12, lines 13-17). The cited reference does not provide any such capability. Rather, the only conditional processing of the transfer function during a system boot is described by *Lautenbach-Lampe* to be whether a format of main memory is needed (*Lautenbach-Lampe*, col. 4, lines 5-21). Thus, it is urged that the amendment to Claim 3 has overcome the present 35 U.S.C. § 102(b) rejection.

With respect to Claim 15, Applicants have amended such claim in accordance with the description at Specification page 7, lines 23-30. It is urged that the cited reference does not contemplate a *storage device that includes all three of* (i) a set of instructions for generating a data dump (ii) a second set of instructions for performing an initial program load (IPL) used to initialize hardware of the data processing system, and (iii) the data dump itself. Rather, the cited reference contemplates usage of both main memory and a hard disk (col. 4, lines 5-9). The features of Claim 15 advantageously provide a unitary device containing the IPL code, the data dump generation code and the data dump itself. Thus, it is urged that the amendment to Claim 15 has overcome the present 35 U.S.C. § 102(b) rejection.

Applicants traverse the rejection of Claims 18 and 19 for reasons given above with respect to Claim 15 (of which Claims 18 and 19 depend upon).

With respect to Claim 20, Applicants have amended such claim in accordance with the description at Specification page 8, line 29 – page 9, line 5; page 10, lines 7-11; and page 10, line 26 – page 11, line 7. It is urged that the cited reference does not contemplate using the same storage memory for logging errors during both normal error logging and a special reboot error logging. In fact, the teachings of the cited reference are particularly keen that the data areas used for these two types of error logging scenarios be different storage areas (*Lautenbach-Lampe*, col. 3, lines 43-46 and col. 4, lines 5-9). Thus, it is urged that the amendment to Claim 20 has overcome the present 35 U.S.C. § 102(b) rejection.

Applicants traverse the rejection of Claims 21 and 22 for reasons given above with respect to Claim 20 (of which Claims 21 and 22 depend upon).

Therefore, the rejection of Claims 1-4, 6, 15 and 18-22 under 35 U.S.C. § 102(b) has been overcome.

V. **35 U.S.C. § 103, Obviousness**

Claims 5, 8-10, 16 and 17 stand rejected under 35 U.S.C. § 103 as being unpatentable over *Lautenbach-Lampe et al.*, Method for Storing Computer Status Data Given a Malfunction That Requires a Subsequent Restarting of the Computer, U.S. Patent No. 6,279,120 B1, (August 21, 2001), (hereinafter “*Lautenbach-Lampe*”). This rejection is respectfully traversed.

With respect to Claim 5, Applicants traverse the rejection of such claim for reasons given above with respect to independent Claim 1 (of which Claim 5 depends upon).

With respect to Claim 8, it is urged that none of the cited references teach or suggest the claimed feature of “third instructions, *responsive to determining that a valid data dump is not maintained by the data processing system*, for executing first failure data capture logic during a boot of the data processing system” (emphasis added by Applicants). In rejecting this aspect of Claim 8, the Examiner states that this claimed feature is taught in its entirety at *Lautenbach-Lampe*, column 4, lines 5-21. Applicants show that there, *Lautenbach-Lampe* states:

“The inventive transfer function, wherein the computer status data is transferred from the main memory onto an external data carrier, is implemented whenever a startup stage with partial or complete formatting of the main memory must be implemented. When different start-up stages are present, whereby at least one lies on a higher level and requires no reformatting of the main memory with loading of the operating system, an inventive decision is made as to whether the startup stage to be implemented is linked with a (selective or complete) reformatting of the main memory. **The transfer function is only implemented when it is determined that a startup stage having at least partial reformatting of the main memory is to be implemented.** To this end, the transfer function is preferably deposited in a basic program level that is processed given a restart with renewed loading of the operating system, namely still before the loading of the operating system.” (emphasis added by Applicants)

As can be seen, per the teachings of *Lautenbach-Lampe*, the transfer function is conditionally implemented based upon whether main memory has been reformatted or not. In contrast, the ‘condition’ for which the conditional execution of the first failure capture logic is based is different in Claim 8 – specifically, Claim 8 recites that the conditional execution is responsive to *whether a valid data dump is not maintained by the data processing system*. Thus, and contrary to the Examiner’s assertion, the cited *Lautenbach-Lampe* reference does not teach or suggest third instructions, *responsive to determining that*

a valid data dump is not maintained by the data processing system, for executing first failure data capture logic during a boot of the data processing system. Therefore, the Examiner has failed to properly establish a *prima facie* showing of obviousness⁵, and accordingly the burden has not shifted to Applicants to rebut such improper obviousness assertion⁶. In addition, as a proper *prima facie* showing of obviousness has not been established, Claim 8 has been improperly rejected under 35 U.S.C. § 103⁷. In any event, Claim 8 has been amended to include certain features of allowable Claim 10. Thus, it is urged that amended Claim 8 (and dependent Claim 9) is allowable.

Further with respect to Claim 10, it is believed that the Examiner erroneously included such claim in the list of claims rejected under 35 U.S.C. § 103, as no reasoning was given for such claim rejection, and in fact Claim 10 is indicated as being allowable in another section of the Office Action (on page 10 of the office action dated December 15, 2006).

Applicants traverse the rejection of Claims 16 and 17 for reasons given above with respect to independent Claim 15 (of which Claims 16 and 17 depend upon).

Therefore, the rejection of Claims 5, 8-10, 16 and 17 under 35 U.S.C. § 103 has been overcome.

VI. Allowable Subject Matter

Applicants graciously acknowledge the allowability of Claims 10-14 in view of the prior art. Claim 8 has been amended to include certain features of allowable Claim 10. In addition, Claim 12 has been amended to be in independent form, to include the features previously recited in independent Claim 8 (of which Claim 12 depended upon).

⁵ In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). To establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. MPEP 2143.03. *See also, In re Royka*, 490 F.2d 580 (C.C.P.A. 1974).

⁶ Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. *Id.*

⁷ If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

VII. Conclusion

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance. The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

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